

## A. DEMOGRAPHIC CONTEXT

- *Population Profile*

In October of 1998 in a presentation to Agenda Alexandria, Ken Billingsley, Director of Information and Development at the Northern Virginia Planning District Commission, traced the fascinating demographic profile of the City. In his remarks, he stated that:

Like the Potomac River at Great Falls, outwardly calm on the surface, there are powerful undercurrents flowing which are about to turn this city inside/out.

Those “currents” included many factors that impact both the need for open space, and types of open space needed, in Alexandria. Mr. Billingsley predicted that the upcoming 2000 census would indicate the following:

- A large infusion of jobs, as well as retail and office development
- A significant shift in the age composition of the City
- A redistribution of the City’s population
- A recomposition of population along ethnic lines
- The replacement of family households by non-family units



Major retail and office development along King and Washington Streets attract diverse population groups

Ken Billingsley also predicted that the population in the nation’s 11<sup>th</sup> densest city would have grown by approximately 1,000 people per year between 1990 and 2000. In reality, Alexandria’s population in the year 2000 far exceeded Mr. Billingsley’s prediction, with the census showing a total population of 128,283, a growth of 17,000 persons in ten years.

Mr. Billingsley’s other predictions have, in large measure, proven to be right on target. While the City’s population under the age of 18 years old grew by almost 26 percent, it represents approximately 17 percent of the City’s total population. One third of the population, however, is between the ages of 20 and 34, while another third is between 35 and 54 years old. The latter group represents a 27 percent increase in the last decade. The median age in the City of Alexandria was 33.5 in 1990; in the year 2000, it is 34.4.

Household composition has also changed significantly. Non-family households comprise 55 percent of all households in the City (a 17 percent growth over 1990). Moreover, there has been a 20 percent increase in the number of householders living alone, so that this population now represents over 43 percent of all households in Alexandria. The City, in fact ranks third in the nation for number of single-person households. Finally, while family households comprise nearly 45 percent of the City’s household population (a 15 percent growth rate), the percent of families with children under the age of 18 remained constant at 18.6 percent. Overall, however, households with children under the age of 18 increased

by 25 percent in the ten year period. Average household size in Alexandria is 2.04 persons, and average family size is 2.87 persons.

While the balance between owners and renters has remained about the same, with City residents renting (60 percent) more often than owning (40 percent), there has been growth in both sectors. Therefore, over the past decade, there has been a 17 percent increase in the number of residents renting their housing units, and a 14.7 percent increase in the number owning their units.

The City has also continued to experience major changes in population composition with regard to racial and ethnic diversity. According to the 2000 Census:

- The White population, currently comprising 59.9 percent of the City's population, has decreased. In 1990, this population made up 69% of the City's residents (a 0.1 population decrease)
- The African American population grew by 18.8 percent, and currently comprises 22.5 percent of the City's total population
- The Hispanic population grew by a remarkable 75.2 percent. While, in 1990, this population represented 9.7 percent of the total City population, in 2000 it represents 14.7 percent.
- The Asian population, while still relatively small, grew in the decade from 1990 to 2000 by 60.8 percent. Asian residents currently comprise 5.7 percent of the City's population.

Many of the City's new residents, reflected in the statistics described above, are part of an influx of newly arrived immigrants who are making Alexandria their American home. This influx has, in fact, resulted in Alexandria being one of the most racially and ethnically diverse locality in Northern Virginia.

The area of the City that has experienced the greatest growth as a result of both the population influx and new development has been the west side, generally included within the City's Planning Area 3. Other areas that have undergone significant population growth in the last decade include the area north of Glebe Road comprising Census Tract 12.3 and within Planning Area 2, and the Eisenhower Valley area spanning Planning Areas 2 and 3.

Finally, the City overall has one of the highest per capita income rates in the region. With Alexandria's per capita income at \$46,290 as of the 2000 Census, the only jurisdiction with a higher per capita rate is Arlington County (\$46,677). For the City, this represents a 46 percent growth in the decade since 1990. In addition, Alexandria ranks among the top cities in the nation with regard to the percent of population with college degrees and advanced degrees.

What does all of this mean with regard to open space? The changing demographic profile of the City reflects changing expectations and demands for various types of open space opportunities. If one considers, for example, that Alexandria is largely a fairly young “adult city” – that is, a city in which two thirds of the population is between the ages of 20 and 54 – with a large proportion of single residents, it is likely that there will be significant demand for open spaces that can accommodate a full range of adult activities. These will range from active sports, including team sports as well as biking and jogging, to more passive endeavors such as hiking and strolling, picnicking, and sunning.

At the same time, the City’s growing population of children under the age of 18 will demand a significant amount of active open space. This is compounded by the fact that many of the rental options in Alexandria, as elsewhere, do not contain usable open space areas. Hence, those families with children living in rental units must rely completely on the City for their open space opportunities. Similarly, the City’s increasing population over the age of 55 will also be seeking a broad range of open space opportunities, both passive and active in nature.

Alexandria’s ethnic diversity will also reflect a diversity in expectations and demands regarding the kinds of open spaces needed. This might range from a greater emphasis on specific types of active recreational pursuits — such as soccer — and an increasing need for fields that can accommodate these activities, to open spaces as settings for strolling and gathering, as is more common in some cultures than it may be in the United States.

Finally, as assessment of the distribution of open space in the City is critical in order to determine the extent to which this matches and responds to the needs of the current and projected population. The Needs Assessment Study that is currently underway will provide the City with information that will allow for a more precise response regarding the distribution and types of recreational facilities – including open space facilities – required. The current Open Space Plan looks at more general open space needs and opportunities, providing the framework for both active and passive uses.



View of King Street metro station and surrounding urban fabric

- ***Density***

In 1990, Alexandria was ranked as the 11<sup>th</sup> densest city in the United States. Over the last decade, our density has increased from 11.0 persons per acre in 1990 to 12.7 persons per acre in 2000, a 15 percent increase. For comparative purposes, based on 1990 Census figures, Alexandria’s per acre density ranked with other major U.S. cities as follows:

- New York: 37.3<sup>1</sup>
- Boston: 18.0
- Philadelphia: 17.1

- Baltimore: 13.1
- Detroit: 11.3
- Alexandria: 11.0
- Minneapolis: 10.2
- Cleveland: 10.1
- Seattle: 9.8
- Pittsburgh: 9.8
- St. Louis: 8.9

On a regional level, the City of Alexandria at 8,145 persons per square mile is more dense than either of its immediate neighbors: with Arlington County at 7,315 persons per square mile and Fairfax County at a mere 2,385 persons.<sup>2</sup>

It is not surprising, given this density, that open space is a valuable and limited asset in the City of Alexandria. Viewed in another way, the City offers 7.3 acres<sup>3</sup> of active and passive public open space for every 1,000 persons living within its boundaries. This is the same as in 1990. Yet, how does this compare with other cities? In his book, *Inside City Parks*, Peter Harnik provides a comparison between open space provisions in select high and medium density American cities. (Note that this comparison is based on 1990 Census figures and has not yet been updated ). Some of these comparisons are noted below:

**Figure 12. Open Space Comparison between Select American Cities<sup>4</sup>**

	Persons per Acre	Parks & Open Space per 1,000 Residents	Park Acreage as Percent- age of City Acreage	Total Population
<b>Alexandria</b>	11.0	7.3	10.7%	111,183
<b>High Density Cities:</b>				
Baltimore	13.1	7.5	9.8	675,000
Boston	18.0	8.7	15.7	558,000
Chicago	18.7	4.3	8.0	2,722,000
Los Angeles	11.8	8.5	10.0	3,554,000
Miami	16.0	3.6	5.8	365,000
New York	37.3	7.2	26.8	7,381,000
Philadelphia	17.1	7.2	12.4	1,478,000
San Francisco	24.6	10.3	25.4	735,000
<b>Average, High</b>		7.2	14.2	
<b>Medium:</b>				
Cincinnati	7.0	21.4	15.0	346,000
Cleveland	10.1	5.8	5.9	498,000
Detroit	11.3	5.9	6.6	1,000,000
Minneapolis	10.2	16.0	16.2	359,000
Pittsburgh	9.8	7.8	7.7	350,000
Portland, OR.	6.0	26.2	15.8	481,000
Seattle	9.8	11.8	11.5	525,000
St. Louis	8.9	9.6	8.5	352,000
<b>Average, Medium</b>		13.0	10.9	

Once again, Alexandria is “betwixt and between” other American cities — in terms of total population, it is considerably smaller than any of the cities listed while, on the other hand, it is comparable in density to cities such as Los Angeles, Detroit, Minneapolis and Cleveland. In terms of the provision of open space per 1,000 residents, however, Alexandria is generally on par with the “high density cities,” while being significantly below the average open space per 1,000 residents provided for “medium density cities.” In terms of quality of life indicators, the cities that are generally lauded as “livable” and providing a high quality of life often include: San Francisco, Cincinnati, Minneapolis, Portland (OR), and Seattle. All of these cities provide substantially more open space per resident than does the City of Alexandria, and all have a significantly greater percent of overall city acreage devoted to parks than does Alexandria.

## B. OPEN SPACE ISSUES

In order for Alexandria to address its future open space needs, it must first assess and confront current issues regarding the City’s existing open space resources. As discussed below, these include:

- The lack of open space continuity and connection
- The diminishing availability of open space
- The uneven distribution of open space
- The need for open space stewardship and protection, particularly with regard to natural areas
- *Open Space Continuity and Connection*

Over the past decade, recreation specialists and urban policy decision-makers have begun to recognize the critical importance of providing connected open spaces within dense urban settings. Not only does the provision of continuous open space opportunities provide more usable and useful open space, but it also strengthens residents’ perception of a “green city,” a city that offers both a human scale and a desirable quality of life.

The current pattern of open space areas within the City of Alexandria is scattered and disconnected (see Figure 3). While these open spaces provide residents with a variety of recreational and visual opportunities, the current dispersed pattern does not maximize the use of these spaces; nor does it enhance the image of Alexandria as a “green city.” Given the high density of the City, it is particularly important that existing open space opportunities be maximized to the greatest extent possible by means of a connected, continuous open space system.

Many communities across the country have been enhancing their open spaces through the creation of greenways, connected green linkages that wind through a city, tie it together, and allow residents access to, and

movement between, a variety of open space experiences. The Virginia Department of Conservation and Recreation (DCR), in its publication *Conserving Virginia's Natural and Recreation Resources*, recognizes that each city's greenway will be unique. In general, however, DCR defines "greenways" as:

...open space corridors that [typically]... connect recreational, natural, cultural, and/or historic areas.

Some of the benefits to be accrued from the creation of greenways, as documented by DCR, include:

- Connecting people and communities
- Providing important open space resources
- Enhancing public awareness of existing parks, as well as natural, cultural and historic resources
- Providing attractive alternative transportation routes for bikers and pedestrians
- Softening urban landscapes
- Enhancing economic development and tourism
- Increasing real property values
- Improving water quality in adjacent rivers and streams, and providing natural wildlife corridors
- Providing close-to-home access to a greater proportion of the population than can be accomplished through traditional, scattered parks
- Improving the overall quality of life in the community

All of these benefits would likely apply to the development of a strong, clearly defined and linked open space network within the City of Alexandria. The physical connections created as a result of this system would bring together people and open space areas throughout the City. The development of this open space system become, therefore, one of the more critically important strategies in the City's Open Space Plan.

- ***Open Space Availability***

There is an apparent inverse relationship between development and open space since an increase in one results in a decrease in the other. For most urban areas within Northern Virginia, rapid development has dramatically decreased the availability of open space for recreational and other purposes. The paradox is that, as more people move into an area and demand high quality open space amenities, the greater the constraints are to find adequate space to accommodate their needs. This is certainly true in the City of Alexandria where an already dense municipality has accommodated a 15.4 percent increase in population over the decade between 1990 and 2000; and where approximately 4,176 new housing units and approximately 50 to 60 development plans were approved in the two year period from FY '98 to FY '00.



Moreover, the pressure for identifying new sites for public use is divided between those who are seeking opportunities for additional open space and those who must address the need for new and expanded school sites and other public facilities, as well as affordable housing opportunities. At present, these groups often compete with one another to identify and claim right to each new land parcel as it becomes available.

These trends indicate the need for several actions with regard to open space in Alexandria:

- Making optimal use of all currently existing open space opportunities through the development of the connected open space system, described above, as well as through the careful stewardship and, where needed, renovation and re-design of existing open space areas.
- Identifying prime candidate sites as additions to the City's open space system. These might include vacant land parcels, underutilized land, open spaces as part of new residential and commercial developments, and private parcels that become available over time. (The criteria for identifying critical parcels, and the tools that can be used to add these to the City's open space inventory are discussed in Section 6 of this report).
- Establishing strategies that will allow for collaboration, rather than competition, between public agencies in their pursuit and development of available opportunity sites.

In the on-going competition between development and open space, many jurisdictions have had to address the belief that the economic benefits to be accrued from development outweigh those attributable to open space. It is relatively easy to quickly dismiss open space as "nice to have" but not as important to a city's economic health as new development. Research and empirical evidence indicate, however, that this is not true. All things considered, development is not always the highest and best use for a piece of property.

There are important qualitative, as well as documented quantitative, benefits that flow from a community's open space resources. These benefits include:

- Retaining population in a city, and attracting new population and businesses to it, based on quality of life judgements, among which open space ranks significantly high.
- Increased assessed and actual real estate values for properties located near or adjacent to open space areas.
- A lower overall cost to local government for land that is developed as open space rather than for residential use.
- Growing public support for open space funding through general obligation bonds and/or increased taxes.

On the qualitative side, open space does provide important social and quality of life assets for communities. In studies conducted throughout the

United States, open space has been increasingly recognized as a critical element determining residents' assessments about the quality of life in their communities. For example, in a 1995 poll conducted by the Regional Plan Association and the Quinnipac College Polling Institute, the two major factors named as most important for determining a satisfactory quality of life were low crime and access to open space. Such findings have been repeatedly confirmed in additional studies by other groups.<sup>5</sup> Moreover, open space resources are typically touted in the economic development, business recruitment, and tourism promotion efforts of many communities. The lack of such resources can place a community at a competitive disadvantage vis a vis other communities, in this era of increasingly active population sectors and growing public support for open space preservation.

In studies focused on determining the critical factors considered in business relocations, open space and recreational opportunities have been found to rank significantly in defining a "good quality of life" for a locality. For example, in a survey conducted in 1997 by Fortune magazine regarding the best cities for business, they asked participants, "If you had virtually identical career opportunities in multiple cities, what would be the most important quality of life factors that would determine your choices." Education ranked first on the list, followed by recreation, culture, crime and safety.

On the quantitative side, reasons to promote open space typically fall under two general categories. The first is the value impact on adjacent properties. The second is the relative "costs" of open space versus development options that might prove to be a fiscal drain on public coffers.

Many studies have been undertaken to document the impact of open space on properties that are near, adjacent to, or fronting on such areas (i.e., "proximate properties").<sup>6</sup> Based on a significant body of research, it has been found that open space areas tend to enhance the value of such proximate properties. The general rule of thumb is that attractive open space can enhance the value (and hence property tax yield) of adjacent or fronting properties by approximately 20 percent. As distance from the open space resource increases, the value premium declines, but the area of impact is thought to be possibly as great as 500 feet for a smaller park, and up to 2,000 feet from a community park.

As with most rules of thumb, there are important limitations and conditions that should be noted: the open space resource must be well kept up and attractive; and, generally, larger open space areas and open spaces devoted to passive uses tend to carry greater value premiums. Proximity to active, rather than passive, recreation areas may actually have negative impact on values for properties that are immediately adjacent due to potential issues such as traffic, congestion, and noise. However, proximity to active open space and park resources can have a positive impact on



values of properties in close proximity to, but not immediately adjacent to, such resources.

The second benefit of open space preservation is based on the premise that retention of a piece of property as open space can preempt development that could require the sometimes-costly provision of public services. This situation is particularly relevant when the alternative use is residential development that would require the full spectrum of public services including schools, public safety, etc. These services typically exceed the value of property tax receipts associated with such development. Combined with the value impact on proximate properties, the net fiscal impact can often enhance the overall positive impact of open space retention for a community. Thus, John Crompton, one of the individuals who has researched the economic impacts of open space versus residential development has concluded that:

The evidence clearly indicated that creating parks and preserving open space can be a less expensive alternative to development. A strategy of conserving parks and open space is not contrary to a community's economic health, but rather is an integral part of it (p.75).

Finally, the economic value of open space has recently been underscored through a series of public referenda supporting funding for parks and open space issues. In the year 2000, for example, the Trust for Public Land reported that 40 communities throughout the nation passed measures that generated \$3.3 billion to protect parks and open spaces. Similarly, the Land Trust Alliance, also in 2000, stated that a total for 141 out of 165 referenda concerning open space and land conservation issues were passed, providing over \$6.9 billion in new funds for these issues. As stated by Ernest Cook, director of the Public Finance Program for the Trust for Public Land:

Voters across the country have demonstrated real commitment to preserving open space in their communities. We are seeing strong support for measures that provide financing for parks and open space even in places where tax measures for other purposes have failed.<sup>7</sup>

- ***Distribution and Access***

Hand in hand with Alexandria's changing demographic picture is its shift in overall population distribution. As discussed earlier in this chapter, the population of Alexandria has been changing both in terms of overall characteristics and where people choose to live. If the City wishes to make its open space resources available to all residents on an equitable basis, it will be important to analyze the current population patterns with regard to existing open space availability.

According to the 2000 U.S. Census, population growth has occurred in

all three of the City's planning districts. However, the growth has been greatest in District 3, the west side of the City (i.e., there was a 21 percent increase in population in District 3 between 1990 and 2000; over the same time period in Districts 1 and 2, growth was 17 percent and 4.6 percent respectively). Viewed in terms of open space acres per thousand residents, District 1 has approximately 12.24 acres per 1,000 persons; District 2 has approximately 6.7 acres; and District 3 offers approximately 6.9 acres. However, many of the open space acres, particularly in District 3, comprise environmentally sensitive sites (such as Holmes Run) that are not suited or intended for active recreational pursuits.

In terms of open space available for active recreation, District 1 contains approximately 4.8 acres per 1,000 residents; District 2 comprises 4.5 acres; and District 3 offers 3.0 acres. Given the fact that the greatest growth in children aged 17 and under occurred in District 3 (44 percent, as compared to 14 percent in District 1 and 8 percent in District 2), it is not surprising that the need for additional recreational open space in District 3 has been identified by the City as an issue requiring attention. In response to this issue, the City has undertaken a Recreation Needs Assessment study that will analyze recreational needs in terms of population characteristics and distribution.

- ***Open Space Stewardship and Protection***

As Alexandria continues to grow, and to attract new residents and businesses, the overall need to protect the City's few remaining open space areas becomes even more critical. One need only look at a map of existing vacant lands (see Figure 13) to underscore how little open land remains within Alexandria's boundaries. Therefore, building an open space system that will adequately provide for a growing population requires that we protect and enhance the open spaces we currently have, and maximize opportunities for creating new open spaces when these become available.

Perhaps the largest potential for open space resources in Alexandria lies in its natural, environmentally sensitive, and cultural/historic areas. These include the City's riverfront, stream valleys, steep slopes, wooded sites, historic landscapes, and other natural resource areas. Care for, and protection of, such areas will be critical to any open space plan for the City since these areas comprise a major portion of Alexandria's green infrastructure. Moreover, they represent a key opportunity for making those open space connections that are essential to the establishment of a working open space network throughout the City. Those opportunities include:

- Connecting Alexandria's residents to both the natural and historic landscapes in their City — areas easily overlooked since many are neither well known nor readily accessible.

- Helping to create a linked, usable open space network within the City that has, at its core, these natural and historic sites.
- Educating the public to appreciate and value these sensitive resources through enhanced access and interpretation.

### C. OPEN SPACE NEED

A separate Recreation Needs Assessment Study has recently been completed by the firm of Leon Younger and PROS. This study has analyzed the City's current and projected recreational needs, in terms of programs as well as indoor and outdoor facilities, and has recommended specific improvements to the City's recreational system. The reader is referred to this document for further details.

However, in general, the population projections for the next 10 years require the addition of at least 100 acres of additional open space just to maintain the existing ratio of open space per capita. In 1990, Alexandria had 7.3 acres of active and passive open space for each 1,000 residents, based on a population of 111,000. Between 1990 and 2000, the City added 125 acres of open space and 17,000 residents. In 2000, Alexandria remained at 7.3 acres per 1,000 residents, despite adding the 125 acres. In 2012, the projected population of 142,000 will require the City to add 100 acres of open space to maintain 7.3 acres for each 1,000 residents.<sup>8</sup>

<sup>1</sup> Based on data from Inside City Parks by Peter Harnik.

<sup>2</sup> Based on data from the 2000 U.S. Census, includes both water and land area.

<sup>3</sup> Based on 932 acres of public open space, divided by 128,283 persons divided by 1,000.

<sup>4</sup> Also based on data from Inside City Parks by Peter Harnik, using 1990 Census figures.

<sup>5</sup> See, for example, The Economic Benefits of Parks and Open Space by Steve Lerner and William Poole, which discusses a series of studies related to open space and quality of life issues.

<sup>6</sup> See, for example, references by John L. Crompton, John Tibbetts, and Elizabeth Brabec.

<sup>7</sup> The Trust for Public Land: Newsroom: 82 Percent of Referenda Passed.

<sup>8</sup> The Strategic Plan's ratio of 7.5 acres per thousand people was based on 840 acres of public land that the City currently maintains. The above numbers go beyond City maintained acres and include other areas such as Daingerfield Island.